

# Subject Index

## Acceleration lanes

Vehicle Flow Characteristics on Acceleration Lanes, Abishai Polus, Livnen and J. Factor, TE Nov. 85 p595-606.

## Accident data

Large Trucks in Urban Areas: A Safety Problem? James O'Day and Lidia P. Kostyniuk, TE May 85 p303-317.

## Aerial photographs

An Analytical Method of Traffic Flow Using Aerial Photographs, Yasuji Makigami, Hamao Sakamoto and Masachika Hayashi, TE July 85 p377-394.

## Aggregates

Overview of Skid Resistance on Ohio Pavements, David C. Colony, TE Sept. 85 p546-560.

## Air pollution

NO<sub>x</sub> Exposure from Vehicles and Gas Stoves, Michael D. Rowe, TE Nov. 85 p679-691.

## Air transportation

Examining Air Travel Demand Using Time Series Data, Ashish Sen, TE March 85 p155-161.  
Transportation Requirements for High Technology Industrial Development, Hani S. Mahmassani and Graham S. Toft, TE Sept. 85 p473-484.

## Airport construction

Design, Construction and Maintenance of Torrijos Airport, Maurice S. Greenberg, Vernon A. Smoots and Rudy M. Pacal, TE March 85 p173-189.

## Airport design

Design, Construction and Maintenance of Torrijos Airport, Maurice S. Greenberg, Vernon A. Smoots and Rudy M. Pacal, TE March 85 p173-189.

## Airport runways

Design, Construction and Maintenance of Torrijos Airport, Maurice S. Greenberg, Vernon A. Smoots and Rudy M. Pacal, TE March 85 p173-189.

## Analytical techniques

An Analytical Method of Traffic Flow Using Aerial Photographs, Yasuji Makigami, Hamao Sakamoto and Masachika Hayashi, TE July 85 p377-394.

## Asphalts

Catalytic Modification of Road Asphalt by Polyethylene, Wladislaw Milkowski, TE Jan. 85 p54-72.

## Axial compression

Blowup of Concrete Pavements, Arnold D. Kerr and W. Alex Dallis, TE Jan. 85 p33-53.

## Bibliographies

Selected Bibliography on Traffic Operations, Com-

mittee on Traffic Operations of the Urban Transportation Division, TE May 85 p191-195.

## Bridge approaches

Use of NDT and Pocket Computers in Pavement Evaluation, Jacob Greenstein, TE May 85 p258-267.

## Buckling

Blowup of Concrete Pavements, Arnold D. Kerr and W. Alex Dallis, TE Jan. 85 p33-53.  
Collapse of Thick Wall Pipe in Ultra Deep Water, Edward A. Verner, Carl G. Langner and Michael D. Reifel, TE Sept. 85 p485-509.

## Buried pipes

Effects of Vehicles on Buried, High-Pressure Pipe, John C. Potter, TE May 85 p224-236.  
Pipe Restraints: Design Fallacies, Patrick J. Creegan, TE Nov. 83 p840-852.

## Bus usage

Generating a Bus Route O-D Matrix From On-Off Data, Jesse Simon and Peter G. Furth, TE Nov. 85 p583-593.  
Performance Measures for New York State Inter-city Buses, Mark Abkowitz and Susan Violette, TE Sept. 85 p521-530.  
Vehicle Pooling in Transit Operations, Peter G. Furth and Andrew B. Nash, TE May 85 p268-279.

## Business districts

Acceptable Walking Distances in Central Areas, Prianka N. Seneviratne, TE July 85 p365-376.  
Urban Transportation Impacts of Tall Buildings, Jon D. Fricker and Huel-Sheng Tsay, TE July 85 p395-409.

## Case reports

A Tale of Two Cities: Light Rail Transit in Canada, Robert Cervero, TE Nov. 85 p633-650.

## Cements

Testing of Cement-Mortar Lined Carbon Steel Pipes, Chang-Ning Sun, James M. Hoskins and R. Joe Hunt, TE Jan. 85 p17-32.

## Central business districts

Pedestrian Traffic on Cincinnati Skywalk System, Manmohan K. Bhalla and Prahlad D. Pant, TE March 85 p95-104.

## Closed conduit flow

Control Valve Flow Coefficients, William Rahmeyer and Les Driskell, TE July 85 p358-364.

## Color

Development of Color Pavement in Korea, Kang W. Lee, Ju Won Kim and Dae Woong Kim, TE May 85 p292-302.

## Computerized routing

Transmission Corridor Location Modeling, Dennis L. Huber and Richard L. Church, TE March 85 p114-130.

## **Concrete**

Catalytic Modification of Road Asphalt by Polyethylene, Wladislaw Milkowski, TE Jan. 85 p54-72.

## **Concrete pavements**

Blowup of Concrete Pavements, Arnold D. Kerr and W. Alex Dallis, TE Jan. 85 p33-53.

Subgrade Contact Pressures under Rigid Pavements, Yu T. Chou, TE May 83 p363-379.

## **Concrete slabs**

Subgrade Contact Pressures under Rigid Pavements, Yu T. Chou, TE May 83 p363-379.

## **Corrosion**

Testing of Cement-Mortar Lined Carbon Steel Pipes, Chang-Ning Sun, James M. Hoskins and R. Joe Hunt, TE Jan. 85 p17-32.

## **Cost effectiveness**

Minimum-Cost Design of Flexible Pavements, Nagui M. Roupail, TE May 85 p196-207.

## **Cost minimization**

Minimum-Cost Design of Flexible Pavements, Nagui M. Roupail, TE May 85 p196-207.

## **County government**

Microcomputer Data Management System, Lansford C. Bell and Charles p. Markert, TE May 85 p251-257.

## **Culverts**

Kinematic-Wave Method for Peak Runoff Estimates, A. Osam Akan, TE July 85 p419-425.

## **Database management systems**

Microcomputer Data Management System, Lansford C. Bell and Charles p. Markert, TE May 85 p251-257.

## **Decision making**

Mathematical Programming for Highway Project Analysis, Frank R. Wilson and Hugo Gonzales, TE March 85 p162-171.

Multi-Attribute Utility in Pavement Rehabilitation Decisions, Satish Mohan and Adil Bushnak, TE July 85 p426-440.

Planning Development with Transit Projects, John H. Page and Michael J. Demetsky, TE Nov. 85 p665-678.

## **Deep water**

Collapse of Thick Wall Pipe in Ultra Deep Water, Edward A. Verner, Carl G. Langner and Michael D. Reifel, TE Sept. 85 p485-509.

## **Demand**

Examining Air Travel Demand Using Time Series Data, Ashish Sen, TE March 85 p155-161.

## **Drainage**

Kinematic-Wave Method for Peak Runoff Estimates, A. Osam Akan, TE July 85 p419-425.

## **Dynamic loads**

Effects of Vehicles on Buried, High-Pressure Pipe, John C. Potter, TE May 85 p224-236.

## **Economic analysis**

Railway Route Rationalization: A Valuation Model, David Arditi and Dan Steven Krieter, TE March 85 p105-113.

## **Economic development**

Planning Development with Transit Projects, John H. Page and Michael J. Demetsky, TE Nov. 85 p665-678.

## **Economic impact**

A Tale of Two Cities: Light Rail Transit in Canada, Robert Cervero, TE Nov. 85 p633-650.

## **Economic justification**

Modern Material Ropeway Capabilities and Characteristics, Edward S. Neumann, Sam Bonasso and Abel D. I. Dede, TE Nov. 85 p651-663.

## **Environmental impacts**

Modern Material Ropeway Capabilities and Characteristics, Edward S. Neumann, Sam Bonasso and Abel D. I. Dede, TE Nov. 85 p651-663.

## **Flexible pavements**

Extension of CBR Method to Highway Pavements, Jacob Uzan, TE Sept. 85 p561-569.

Minimum-Cost Design of Flexible Pavements, Nagui M. Roupail, TE May 85 p196-207.

## **Flow coefficient**

Control Valve Flow Coefficients, William Rahmeyer and Les Driskell, TE July 85 p358-364.

## **Flow control**

Control Valve Flow Coefficients, William Rahmeyer and Les Driskell, TE July 85 p358-364.

## **Fuel consumption**

Estimating Fuel Consumption from Engine Size, Tenny N. Lam, TE July 85 p339-357.

## **Funding allocations**

Examining the Performance Impacts of Transit Operating Subsidies, Robert Cervero, TE Sept. 84 p467-480.

## **Guardrails**

Ranking Low Guardrail Sites for Remedial Treatment, Bradley T. Hargroves and J. Stuart Tyler, TE Sept. 85 p539-545.

## **Head losses**

Correction of Head Loss Measurements in Water Mains, Thomas M. Walski, TE Jan. 85 p75-78.

## **Health hazards**

NO<sub>x</sub> Exposure from Vehicles and Gas Stoves, Michael D. Rowe, TE Nov. 85 p679-691.

## **Highway construction**

Statistical Analysis of Specification Compliance, Charles H. Snow, TE May 85 p280-291.

## **Highway improvements**

3R Standards Implementation, David K. Phillips, TE March 85 p131-137.

**Mathematical Programming for Highway Project Analysis**, Frank R. Wilson and Hugo Gonzales, TE March 85 p162-171.

#### **Highway maintenance**

**3R Standards Implementation**, David K. Phillips, TE March 85 p131-137.

**Microcomputer Data Management System**, Lansford C. Bell and Charles p. Markert, TE May 85 p251-257.

#### **Highway management**

**Microcomputer Data Management System**, Lansford C. Bell and Charles p. Markert, TE May 85 p251-257.

#### **Highway safety**

**3R Standards Implementation**, David K. Phillips, TE March 85 p131-137.

**Ranking Low Guardrail Sites for Remedial Treatment**, Bradley T. Hargroves and J. Stuart Tyler, TE Sept. 85 p539-545.

#### **Highway surfaces**

**Extension of CBR Method to Highway Pavements**, Jacob Uzan, TE Sept. 85 p561-569.

**Overview of Skid Resistance on Ohio Pavements**, David C. Colony, TE Sept. 85 p546-560.

#### **Human ecology**

**NO<sub>2</sub> Exposure from Vehicles and Gas Stoves**, Michael D. Rowe, TE Nov. 85 p679-691.

#### **Hydrodynamic pressure**

**Wave Load-Submarine Pipeline-Seafloor Interaction**, M. R. Pranesht and G. S. Somanatha, TE May 85 p237-250.

#### **Industries**

**Transportation Requirements for High Technology Industrial Development**, Hani S. Mahmassani and Graham S. Toft, TE Sept. 85 p473-484.

#### **Intersections**

**Are Pedestrians Safe at Right-On-Red Intersections?** Himmat S. Chadda and Paul M. Schonfeld, TE Jan. 85 p1-16.

#### **Interurban travel**

**Performance Measures for New York State Inter-city Buses**, Mark Abkowitz and Susan Violette, TE Sept. 85 p521-530.

#### **Japan**

**Improvement of Congestion Detection on Expressways**, Masata Iwasaki, Masaki Koshi and Izumi Okura, TE July 85 p327-338.

#### **Kinematic wave theory**

**Kinematic-Wave Method for Peak Runoff Estimates**, A. Osam Akan, TE July 85 p419-425.

#### **Land usage planning**

**A Tale of Two Cities: Light Rail Transit in Canada**, Robert Cervero, TE Nov. 85 p633-650.

#### **Leakage**

**Leakage from Ruptured Submarine Oil Pipeline**, C. Kranenburg and E. Vegt, TE Sept. 85 p570-581.

#### **Linear programming**

**Minimum-Cost Design of Flexible Pavements**, Nagui M. Rouphail, TE May 85 p196-207.

#### **Magnetic levitation trains**

**High-Speed Rail Systems in the United States**, The Subcommittee on High-Speed Rail Systems of the Committee on Public Transport of the Urban Transportation Division, TE March 85 p79-94.

#### **Maintenance costs**

**Design, Construction and Maintenance of Torrijos Airport**, Maurice S. Greenberg, Vernon A. Smoots and Rudy M. Pacal, TE March 85 p173-189.

#### **Materials tests**

**Catalytic Modification of Road Asphalt by Polyethylene**, Wladislaw Milkowski, TE Jan. 85 p54-72.

**Statistical Analysis of Specification Compliance**, Charles H. Snow, TE May 85 p280-291.

#### **Mathematical models**

**Leakage from Ruptured Submarine Oil Pipeline**, C. Kranenburg and E. Vegt, TE Sept. 85 p570-581.

#### **Microcomputers**

**Microcomputer Data Management System**, Lansford C. Bell and Charles p. Markert, TE May 85 p251-257.

#### **Moisture content**

**Blowup of Concrete Pavements**, Arnold D. Kerr and W. Alex Dallis, TE Jan. 85 p33-53.

#### **Mortars**

**Testing of Cement-Mortar Lined Carbon Steel Pipes**, Chang-Ning Sun, James M. Hoskins and R. Joe Hunt, TE Jan. 85 p17-32.

#### **New York, State of**

**Performance Measures for New York State Inter-city Buses**, Mark Abkowitz and Susan Violette, TE Sept. 85 p521-530.

#### **Nitrogen dioxide**

**NO<sub>2</sub> Exposure from Vehicles and Gas Stoves**, Michael D. Rowe, TE Nov. 85 p679-691.

#### **Nondestructive tests**

**Dynamics of Falling Weight Deflectometer**, Boutros Sebaaly, Trevor G. Davies and Michael S. Mamlouk, TE Nov. 85 p618-632.

**Use of NDT and Pocket Computers in Pavement Evaluation**, Jacob Greenstein, TE May 85 p258-267.

#### **Offshore pipelines**

**Collapse of Thick Wall Pipe in Ultra Deep Water**, Edward A. Verner, Carl G. Langner and Michael D. Reifel, TE Sept. 85 p485-509.

**Leakage from Ruptured Submarine Oil Pipeline**, C. Kranenburg and E. Vegt, TE Sept. 85 p570-581.

#### **Oil pipelines**

**Leakage from Ruptured Submarine Oil Pipeline**, C. Kranenburg and E. Vegt, TE Sept. 85 p570-581.

## **Oil spills**

Leakage from Ruptured Submarine Oil Pipeline, C. Kraneburg and E. Vegt, TE Sept. 85 p570-581.

## **Operating costs**

Examining the Performance Impacts of Transit Operating Subsidies, Robert Cervero, TE Sept. 84 p467-480.

## **Overpasses**

Flyovers and High Flow Arterial Concept, Wilfred W. Recker, Michael G. McNally and Gregory S. Root, TE March 85 p139-154.

## **Panama**

Design, Construction and Maintenance of Torrijos Airport, Maurice S. Greenberg, Vernon A. Smoots and Rudy M. Pacal, TE March 85 p173-189.

## **Pavement condition**

Use of NDT and Pocket Computers in Pavement Evaluation, Jacob Greenstein, TE May 85 p258-267.

## **Pavement damage**

Blowup of Concrete Pavements, Arnold D. Kerr and W. Alex Dallis, TE Jan. 85 p33-53.

## **Pavement deflections**

Dynamics of Falling Weight Deflectometer, Boutros Sebaaly, Trevor G. Davies and Michael S. Mamlouk, TE Nov. 85 p618-632.

Extension of CBR Method to Highway Pavements, Jacob Uzan, TE Sept. 85 p561-569.

## **Pavement design**

Comparison of two Rigid Pavement Design Methods, David L. Guell, TE Nov. 85 p607-617.

Development of Color Pavement in Korea, Kang W. Lee, Ju Won Kim and Dae Woong Kim, TE May 85 p292-302.

Extension of CBR Method to Highway Pavements, Jacob Uzan, TE Sept. 85 p561-569.

Minimum-Cost Design of Flexible Pavements, Nagui M. Roupail, TE May 85 p196-207.

Subgrade Contact Pressures under Rigid Pavements, Yu T. Chou, TE May 83 p363-379.

## **Pavements**

3R Standards Implementation, David K. Phillips, TE March 85 p131-137.

Blowup of Concrete Pavements, Arnold D. Kerr and W. Alex Dallis, TE Jan. 85 p33-53.

Catalytic Modification of Road Asphalt by Polyethylene, Wladislaw Milkowski, TE Jan. 85 p54-72.

Dynamics of Falling Weight Deflectometer, Boutros Sebaaly, Trevor G. Davies and Michael S. Mamlouk, TE Nov. 85 p618-632.

Multi-Attribute Utility in Pavement Rehabilitation Decisions, Satish Mohan and Adil Bushnak, TE July 85 p426-440.

Overview of Skid Resistance on Ohio Pavements, David C. Colony, TE Sept. 85 p546-560.

## **Peak runoff**

Kinematic-Wave Method for Peak Runoff Estimates, A. Osam Akan, TE July 85 p419-425.

## **Pedestrian safety**

Are Pedestrians Safe at Right-On-Red Intersections? Himmat S. Chadda and Paul M. Schonfeld, TE Jan. 85 p1-16.

## **Pedestrian traffic flow**

Acceptable Walking Distances in Central Areas, Prianka N. Seneviratne, TE July 85 p365-376.

Pedestrian Traffic on Cincinnati Skywalk System, Manmohan K. Bhalla and Prahlad D. Pant, TE March 85 p95-104.

## **Pipe joints**

Pipe Restraints: Design Fallacies, Patrick J. Creagan, TE Nov. 83 p840-852.

## **Pipe lining**

Testing of Cement-Mortar Lined Carbon Steel Pipes, Chang-Ning Sun, James M. Hoskins and R. Joe Hunt, TE Jan. 85 p17-32.

## **Pipeline design**

Pipe Restraints: Design Fallacies, Patrick J. Creagan, TE Nov. 83 p840-852.

## **Planning**

Mathematical Programming for Highway Project Analysis, Frank R. Wilson and Hugo Gonzales, TE March 85 p162-171.

## **Polyethylene**

Catalytic Modification of Road Asphalt by Polyethylene, Wladislaw Milkowski, TE Jan. 85 p54-72.

## **Pressure gages**

Correction of Head Loss Measurements in Water Mains, Thomas M. Walski, TE Jan. 85 p75-78.

## **Priorities**

Multi-Attribute Utility in Pavement Rehabilitation Decisions, Satish Mohan and Adil Bushnak, TE July 85 p426-440.

## **Productivity**

Examining the Performance Impacts of Transit Operating Subsidies, Robert Cervero, TE Sept. 84 p467-480.

## **Project evaluation**

Mathematical Programming for Highway Project Analysis, Frank R. Wilson and Hugo Gonzales, TE March 85 p162-171.

## **Project selection**

Mathematical Programming for Highway Project Analysis, Frank R. Wilson and Hugo Gonzales, TE March 85 p162-171.

## **Quality control**

Statistical Analysis of Specification Compliance, Charles H. Snow, TE May 85 p280-291.

### **Rail transportation**

High-Speed Rail Systems in the United States, The Subcommittee on High-Speed Rail Systems of the Committee on Public Transport of the Urban Transportation Division, TE March 85 p79-94.

A Tale of Two Cities: Light Rail Transit in Canada, Robert Cervero, TE Nov. 85 p633-650.

### **Railroad engineering**

Railway Route Rationalization: A Valuation Model, David Arditi and Dan Steven Krieter, TE March 85 p105-113.

### **Rapid transit railways**

High-Speed Rail Systems in the United States, The Subcommittee on High-Speed Rail Systems of the Committee on Public Transport of the Urban Transportation Division, TE March 85 p79-94.

### **Regional development**

Transportation Requirements for High Technology Industrial Development, Hani S. Mahmassani and Graham S. Toft, TE Sept. 85 p473-484.

### **Rehabilitation**

Multi-Attribute Utility in Pavement Rehabilitation Decisions, Satish Mohan and Adil Bushnak, TE July 85 p426-440.

### **Research**

Collapse of Thick Wall Pipe in Ultra Deep Water, Edward A. Verner, Carl G. Langner and Michael D. Reifel, TE Sept. 85 p485-509.

### **Residential streets**

Speed (Road) Bumps: Issues and Opinions, Himmat S. Chadda and Seward E. Cross, TE July 85 p410-418.

### **Restraint systems**

Pipe Restraints: Design Fallacies, Patrick J. Creegan, TE Nov. 83 p840-852.

### **Right of way, land**

Transmission Corridor Location Modeling, Dennis L. Huber and Richard L. Church, TE March 85 p114-130.

### **Rigid pavements**

Comparison of two Rigid Pavement Design Methods, David L. Guell, TE Nov. 85 p607-617.

Subgrade Contact Pressures under Rigid Pavements, Yu T. Chou, TE May 83 p363-379.

### **Road design**

Consistency in Design for Low-Volume Rural Roads, Clarkson H. Oglesby, TE Sept. 85 p510-519.

### **Ropeways**

Modern Material Ropeway Capabilities and Characteristics, Edward S. Neumann, Sam Bonasso and Abel D. I. Dede, TE Nov. 85 p651-663.

### **Route preferences**

Generating a Bus Route O-D Matrix From On-Off Data, Jesse Simon and Peter G. Furth, TE Nov. 85 p583-593.

### **Rural roads**

Consistency in Design for Low-Volume Rural Roads, Clarkson H. Oglesby, TE Sept. 85 p510-519.

### **Scheduling**

Vehicle Pooling in Transit Operations, Peter G. Furth and Andrew B. Nash, TE May 85 p268-279.

### **Scour**

Wave Load-Submarine Pipeline-Seafloor Interaction, M. R. Pranesh and G. S. Somanatha, TE May 85 p237-250.

### **Skid resistance**

Overview of Skid Resistance on Ohio Pavements, David C. Colony, TE Sept. 85 p546-560.

### **Slabs**

Comparison of two Rigid Pavement Design Methods, David L. Guell, TE Nov. 85 p607-617.

### **Soil-pipe interaction**

Effects of Vehicles on Buried, High-Pressure Pipe, John C. Potter, TE May 85 p224-236.

### **Specifications**

Statistical Analysis of Specification Compliance, Charles H. Snow, TE May 85 p280-291.

### **Speed control**

Speed (Road) Bumps: Issues and Opinions, Himmat S. Chadda and Seward E. Cross, TE July 85 p410-418.

### **Stability**

Catalytic Modification of Road Asphalt by Polyethylene, Wladislaw Milkowski, TE Jan. 85 p54-72.

### **Statistical analysis**

Red Turn Arrow: An Information Theoretic Evaluation, S. Kullback and John C. Keegel, TE July 85 p441-452.

Statistical Analysis of Specification Compliance, Charles H. Snow, TE May 85 p280-291.

Statistical Designation of Traffic Control Subareas, James E. Moore and Paul P. Jovanis, TE May 85 p208-223.

### **Steel pipes**

Effects of Vehicles on Buried, High-Pressure Pipe, John C. Potter, TE May 85 p224-236.

### **Stress**

Wave Load-Submarine Pipeline-Seafloor Interaction, M. R. Pranesh and G. S. Somanatha, TE May 85 p237-250.

### **Subgrades**

Subgrade Contact Pressures under Rigid Pavements, Yu T. Chou, TE May 83 p363-379.

Use of NDT and Pocket Computers in Pavement Evaluation, Jacob Greenstein, TE May 85 p258-267.

### **Submarine pipelines**

Leakage from Ruptured Submarine Oil Pipeline, C. Kranenburg and E. Vegt, TE Sept. 85 p570-581.

Wave Load-Submarine Pipeline-Seafloor Interaction, M. R. Pranesha and G. S. Somanatha, TE May 85 p237-250.

### **Subsidies, financial**

Examining the Performance Impacts of Transit Operating Subsidies, Robert Cervero, TE Sept. 84 p467-480.

### **Tall buildings**

Urban Transportation Impacts of Tall Buildings, Jon D. Fricker and Huel-Sheng Tsay, TE July 85 p395-409.

### **Technology**

Transportation Requirements for High Technology Industrial Development, Hani S. Mahmassani and Graham S. Toft, TE Sept. 85 p473-484.

### **Technology assessment**

High-Speed Rail Systems in the United States, The Subcommittee on High-Speed Rail Systems of the Committee on Public Transport of the Urban Transportation Division, TE March 85 p79-94.

Modern Material Ropeway Capabilities and Characteristics, Edward S. Neumann, Sam Bonasso and Abel D. I. Dede, TE Nov. 85 p651-663.

### **Temperature effects**

Blowup of Concrete Pavements, Arnold D. Kerr and W. Alex Dallis, TE Jan. 85 p33-53.

Catalytic Modification of Road Asphalt by Polyethylene, Wladislaw Milkowski, TE Jan. 85 p54-72.

### **Thickness**

Comparison of two Rigid Pavement Design Methods, David L. Guell, TE Nov. 85 p607-617.

### **Time series analysis**

Examining Air Travel Demand Using Time Series Data, Ashish Sen, TE March 85 p155-161.

### **Traffic congestion**

An Analytical Method of Traffic Flow Using Aerial Photographs, Yasuji Makigami, Hamao Sakamoto and Masachika Hayashi, TE July 85 p377-394.

Improvement of Congestion Detection on Expressways, Masata Iwasaki, Masaki Koshi and Izumi Okura, TE July 85 p327-338.

### **Traffic control**

Improvement of Congestion Detection on Expressways, Masata Iwasaki, Masaki Koshi and Izumi Okura, TE July 85 p327-338.

Safe Conversions of Unwarranted Multi-Way Stop Signs, Himmat S. Chadda and Thomas E. Mulinazzi, TE Sept. 85 p531-538.

Statistical Designation of Traffic Control Subareas, James E. Moore and Paul P. Jovanis, TE May 85 p208-223.

### **Traffic control devices**

Red Turn Arrow: An Information Theoretic Evaluation, S. Kullback and John C. Keegel, TE July 85 p441-452.

### **Traffic flow**

An Analytical Method of Traffic Flow Using Aerial Photographs, Yasuji Makigami, Hamao Sakamoto and Masachika Hayashi, TE July 85 p377-394.

### **Traffic flow patterns**

Vehicle Flow Characteristics on Acceleration Lanes, Abishai Polus, Livnen and J. Factor, TE Nov. 85 p595-606.

### **Traffic management**

Flyovers and High Flow Arterial Concept, Wilfred W. Recker, Michael G. McNally and Gregory S. Root, TE March 85 p139-154.

Selected Bibliography on Traffic Operations, Committee on Traffic Operations of the Urban Transportation Division, TE May 85 p191-195.

### **Traffic safety**

Consistency in Design for Low-Volume Rural Roads, Clarkson H. Oglesby, TE Sept. 85 p510-519.

Development of Color Pavement in Korea, Kang W. Lee, Ju Won Kim and Dae Woong Kim, TE May 85 p292-302.

Large Trucks in Urban Areas: A Safety Problem? James O'Day and Lidia P. Kostyniuk, TE May 85 p303-317.

Safe Conversions of Unwarranted Multi-Way Stop Signs, Himmat S. Chadda and Thomas E. Mulinazzi, TE Sept. 85 p531-538.

Speed (Road) Bumps: Issues and Opinions, Himmat S. Chadda and Seward E. Cross, TE July 85 p410-418.

### **Traffic signals**

Are Pedestrians Safe at Right-On-Red Intersections? Himmat S. Chadda and Paul M. Schonfeld, TE Jan. 85 p1-16.

Flyovers and High Flow Arterial Concept, Wilfred W. Recker, Michael G. McNally and Gregory S. Root, TE March 85 p139-154.

Red Turn Arrow: An Information Theoretic Evaluation, S. Kullback and John C. Keegel, TE July 85 p441-452.

Statistical Designation of Traffic Control Subareas, James E. Moore and Paul P. Jovanis, TE May 85 p208-223.

### **Traffic signs**

Consistency in Design for Low-Volume Rural Roads, Clarkson H. Oglesby, TE Sept. 85 p510-519.

Safe Conversions of Unwarranted Multi-Way Stop Signs, Himmat S. Chadda and Thomas E. Mulinazzi, TE Sept. 85 p531-538.

### **Traffic speed**

An Analytical Method of Traffic Flow Using Aerial Photographs, Yasuji Makigami, Hamao

- Sakamoto and Masachika Hayashi, TE July 85 p377-394.
- Speed (Road) Bumps: Issues and Opinions,** Himmat S. Chadda and Seward E. Cross, TE July 85 p410-418.
- Traffic surveys**
- An Analytical Method of Traffic Flow Using Aerial Photographs, Yasuji Makigami, Hamao Sakamoto and Masachika Hayashi, TE July 85 p377-394.
- Red Turn Arrow: An Information Theoretic Evaluation, S. Kullback and John C. Keegel, TE July 85 p441-452.
- Traffic volume**
- Overview of Skid Resistance on Ohio Pavements, David C. Colony, TE Sept. 85 p546-560.
- Transit systems**
- Examining the Performance Impacts of Transit Operating Subsidies, Robert Cervero, TE Sept. 84 p467-480.
- Transmission lines**
- Transmission Corridor Location Modeling, Dennis L. Huber and Richard L. Church, TE March 85 p114-130.
- Transportation planning**
- Planning Development with Transit Projects, John H. Page and Michael J. Demetsky, TE Nov. 85 p665-678.
- Urban Transportation Impacts of Tall Buildings, Jon D. Fricker and Huel-Sheng Tsay, TE July 85 p395-409.
- Transportation studies**
- Performance Measures for New York State Inter-city Buses, Mark Abkowitz and Susan Violette, TE Sept. 85 p521-530.
- Transportation Requirements for High Technology Industrial Development, Hani S. Mahmassani and Graham S. Toft, TE Sept. 85 p473-484.
- Transportation system financing**
- Planning Development with Transit Projects, John H. Page and Michael J. Demetsky, TE Nov. 85 p665-678.
- Travel patterns**
- Estimating Fuel Consumption from Engine Size, Tenny N. Lam, TE July 85 p339-357.
- Generating a Bus Route O-D Matrix From On-Off Data, Jesse Simon and Peter G. Furth, TE Nov. 85 p583-593.
- Trucks**
- Large Trucks in Urban Areas: A Safety Problem? James O'Day and Lidia P. Kostyniuk, TE May 85 p303-317.
- Urban areas**
- Large Trucks in Urban Areas: A Safety Problem? James O'Day and Lidia P. Kostyniuk, TE May 85 p303-317.
- Urban development**
- Urban Transportation Impacts of Tall Buildings, Jon D. Fricker and Huel-Sheng Tsay, TE July 85 p395-409.
- Urban highways**
- Improvement of Congestion Detection on Expressways, Masata Iwasaki, Masaki Koshi and Izumi Okura, TE July 85 p327-338.
- Urban transportation**
- Flyovers and High Flow Arterial Concept, Wilfred W. Recker, Michael G. McNally and Gregory S. Root, TE March 85 p139-154.
- Selected Bibliography on Traffic Operations, Committee on Traffic Operations of the Urban Transportation Division, TE May 85 p191-195.
- Transportation Requirements for High Technology Industrial Development, Hani S. Mahmassani and Graham S. Toft, TE Sept. 85 p473-484.
- Urban Transportation Impacts of Tall Buildings, Jon D. Fricker and Huel-Sheng Tsay, TE July 85 p395-409.
- Utility theory**
- Multi-Attribute Utility in Pavement Rehabilitation Decisions, Satish Mohan and Adil Bushnak, TE July 85 p426-440.
- Valves**
- Control Valve Flow Coefficients, William Rahmeyer and Les Driskell, TE July 85 p358-364.
- Vehicle safety**
- Large Trucks in Urban Areas: A Safety Problem? James O'Day and Lidia P. Kostyniuk, TE May 85 p303-317.
- Vehicle usage**
- Estimating Fuel Consumption from Engine Size, Tenny N. Lam, TE July 85 p339-357.
- Large Trucks in Urban Areas: A Safety Problem? James O'Day and Lidia P. Kostyniuk, TE May 85 p303-317.
- Vehicular traffic**
- Effects of Vehicles on Buried, High-Pressure Pipe, John C. Potter, TE May 85 p224-236.
- Water pipelines**
- Correction of Head Loss Measurements in Water Mains, Thomas M. Walski, TE Jan. 85 p75-78.
- Water temperature**
- Correction of Head Loss Measurements in Water Mains, Thomas M. Walski, TE Jan. 85 p75-78.





## Author Index

### **Abkowitz, Mark**

Performance Measures for New York State Inter-city Buses, with Susan Violette, TE Sept. 85, p521-530

### **Akan, A. Osum**

Kinematic-Wave Method for Peak Runoff Estimates, TE July 85, p419-425

### **Arditi, David**

Railway Route Rationalization: A Valuation Model, with Dan Steven Krieter, TE March 85, p105-113

### **Beil, Lansford C.**

Microcomputer Data Management System, with Charles p. Markert, TE May 85, p251-257

### **Bhalla, Manmohan K.**

Pedestrian Traffic on Cincinnati Skywalk System, with Prahlad D. Pant, TE March 85, p95-104

### **Bonasso, Sam**

see Neumann, Edward S., TE Nov. 85, p651-663

### **Bushnak, Adil**

see Mohan, Satish, TE July 85, p426-440

### **Cervero, Robert**

A Tale of Two Cities: Light Rail Transit in Canada, TE Nov. 85, p633-650

Examining the Performance Impacts of Transit Operating Subsidies, TE Sept. 84, p467-480  
err: TE July 85, p471

### **Chadda, Himmat S.**

Are Pedestrians Safe at Right-On-Red Intersections?, with Paul M. Schonfeld, TE Jan. 85, p1-16  
Safe Conversions of Unwarranted Multi-Way Stop Signs, with Thomas E. Mulinazzi, TE Sept. 85, p531-538

Speed (Road) Bumps: Issues and Opinions, with Seward E. Cross, TE July 85, p410-418

### **Chou, Yu T.**

Subgrade Contact Pressures under Rigid Pavements, TE May 83, p363-379  
disc: Anastasios M. Iannides, TE May 85, p321-326

### **Church, Richard L.**

see Huber, Dennis L., TE March 85, p114-130

### **Colony, David C.**

Overview of Skid Resistance on Ohio Pavements, TE Sept. 85, p546-560

### **Committee on Traffic Operations of the Urban Transportation Division, chmn.)**

Selected Bibliography on Traffic Operations, TE May 85, p191-195

### **Creegan, Patrick J.**

Pipe Restraints: Design Fallacies, TE Nov. 83, p840-852

disc: John E. Jarf and Scott J. Munson, TE July 85, p455-457

disc: John H. Scarino, TE July 85, p457-464

disc: Dwight C. Schroeder, TE July 85, p464-466

clo: TE July 85, p466-471

### **Cross, Seward E.**

see Chadda, Himmat S., TE July 85, p410-418

### **Dallis, W. Alex**

see Kerr, Arnold D., TE Jan. 85, p33-53

### **Davies, Trevor G.**

see Sebaaly, Boutros, TE Nov. 85, p618-632

### **Dede, Abel D. I.**

see Neumann, Edward S., TE Nov. 85, p651-663

### **Demetsky, Michael J.**

see Page, John H., TE Nov. 85, p665-678

### **Driskell, Les**

see Rahmeyer, William, TE July 85, p358-364

### **Factor, J.**

see Polus, Abishai, TE Nov. 85, p595-606

### **Fricker, Jon D.**

Urban Transportation Impacts of Tall Buildings, with Huel-Sheng Tsay, TE July 85, p395-409

### **Furth, Peter G.**

Vehicle Pooling in Transit Operations, with Andrew B. Nash, TE May 85, p268-279

### **Gonzales, Hugo**

see Wilson, Frank R., TE March 85, p162-171

### **Greenberg, Maurice S.**

Design, Construction and Maintenance of Torrijos Airport, with Vernon A. Smoots and Rudy M. Pacal, TE March 85, p173-189

### **Greenstein, Jacob**

Use of NDT and Pocket Computers in Pavement Evaluation, TE May 85, p258-267

### **Guell, David L.**

Comparison of two Rigid Pavement Design Methods, TE Nov. 85, p607-617

### **Hargroves, Bradley T.**

Ranking Low Guardrail Sites for Remedial Treatment, with J. Stuart Tyler, TE Sept. 85, p539-545

### **Hayashi, Masachika**

see Makigami, Yasuji, TE July 85, p377-394

### **Hoskins, James M.**

see Sun, Chang-Ning, TE Jan. 85, p17-32

### **Huber, Dennis L.**

Transmission Corridor Location Modeling, with Richard L. Church, TE March 85, p114-130

### **Hunt, R. Joe**

see Sun, Chang-Ning, TE Jan. 85, p17-32

### **Iannides, Anastasios M.**

disc. (of Subgrade Contact Pressures under Rigid Pavements, by Yu T. Chou, TE May 83, p363-379), TE May 85, p321-326

### **Iwasaki, Masata**

Improvement of Congestion Detection on Expressways, with Masaki Koshi and Izumi Okura, TE July 85, p327-338

- Jarf, John E.**  
disc. (of Pipe Restraints: Design Fallacies, by Patrick J. Creegan, TE Nov. 83, p840-852) with Scott J. Munson, TE July 85, p455-457
- Jovanis, Paul P.**  
see Moore, James E., TE May 85, p208-223
- Keegel, John C.**  
see Kullback, S., TE July 85, p441-452
- Kerr, Arnold D.**  
Blowup of Concrete Pavements, with W. Alex Dallis, TE Jan. 85, p33-53
- Kim, Dae Woong**  
see Lee, Kang W., TE May 85, p292-302
- Kim, Ju Won**  
see Lee, Kang W., TE May 85, p292-302
- Koshi, Masaki**  
see Iwasaki, Masata, TE July 85, p327-338
- Kostyniuk, Lidia P.**  
see O'Day, James, TE May 85, p303-317
- Kranenburg, C.**  
Leakage from Ruptured Submarine Oil Pipeline, with E. Vegt, TE Sept. 85, p570-581
- Krieter, Dan Steven**  
see Arditi, David, TE March 85, p105-113
- Kullback, S.**  
Red Turn Arrow: An Information Theoretic Evaluation, with John C. Keegel, TE July 85, p441-452
- Lam, Tenny N.**  
Estimating Fuel Consumption from Engine Size, TE July 85, p339-357
- Langner, Carl G.**  
see Verner, Edward A., TE Sept. 85, p485-509
- Lee, Kang W.**  
Development of Color Pavement in Korea, with Ju Won Kim and Dae Woong Kim, TE May 85, p292-302
- Livnen**  
see Polus, Abishai, TE Nov. 85, p595-606
- McNally, Michael G.**  
see Recker, Wilfred W., TE March 85, p139-154
- Mahmassani, Hani S.**  
Transportation Requirements for High Technology Industrial Development, with Graham S. Toft, TE Sept. 85, p473-484
- Makigami, Yasuji**  
An Analytical Method of Traffic Flow Using Aerial Photographs, with Hamao Sakamoto and Masachika Hayashi, TE July 85, p377-394
- Mamlouk, Michael S.**  
see Sebaaly, Boutros, TE Nov. 85, p618-632
- Markert, Charles P.**  
see Bell, Lansford C., TE May 85, p251-257
- Milkowski, Wladislaw**  
Catalytic Modification of Road Asphalt by Polyethylene, TE Jan. 85, p54-72
- Mohan, Satish**  
Multi-Attribute Utility in Pavement Rehabilitation Decisions, with Adil Bushnak, TE July 85, p426-440
- Moore, James E.**  
Statistical Designation of Traffic Control Subareas, with Paul P. Jovanis, TE May 85, p208-223
- Mullarazi, Thomas E.**  
see Chadda, Himmat S., TE Sept. 85, p531-538
- Munson, Scott J.**  
see Jarf, John E., (disc), TE July 85, p455-457
- Nash, Andrew B.**  
see Furth, Peter G., TE May 85, p268-279
- Neumann, Edward S.**  
Modern Material Ropeway Capabilities and Characteristics, with Sam Bonasso and Abel D. I. Dede, TE Nov. 85, p651-663
- O'Day, James**  
Large Trucks in Urban Areas: A Safety Problem?, with Lidia P. Kostyniuk, TE May 85, p303-317
- Oglesby, Clarkson H.**  
Consistency in Design for Low-Volume Rural Roads, TE Sept. 85, p510-519
- Okura, Izumi**  
see Iwasaki, Masata, TE July 85, p327-338
- Pacal, Rudy M.**  
see Greenberg, Maurice S., TE March 85, p173-189
- Page, John H.**  
Planning Development with Transit Projects, with Michael J. Demetsky, TE Nov. 85, p665-678
- Pant, Prahlad D.**  
see Bhalla, Manmohan K., TE March 85, p95-104
- Phillips, David K.**  
3R Standards Implementation, TE March 85, p131-137
- Polus, Abishai**  
Vehicle Flow Characteristics on Acceleration Lanes, with Livnen and J. Factor, TE Nov. 85, p595-606
- Potter, John C.**  
Effects of Vehicles on Buried, High-Pressure Pipe, TE May 85, p224-236
- Pranesh, M. R.**  
Wave Load-Submarine Pipeline-Seafloor Interaction, with G. S. Somanatha, TE May 85, p237-250
- Rahmeyer, William**  
Control Valve Flow Coefficients, with Les Driskell, TE July 85, p358-364
- Recker, Wilfred W.**  
Flyovers and High Flow Arterial Concept, with Michael G. McNally and Gregory S. Root, TE March 85, p139-154
- Reifel, Michael D.**  
see Verner, Edward A., TE Sept. 85, p485-509
- Root, Gregory S.**  
see Recker, Wilfred W., TE March 85, p139-154

- Rouphail, Nagui M.**  
Minimum-Cost Design of Flexible Pavements, TE  
May 85, p196-207
- Rowe, Michael D.**  
NO<sub>x</sub> Exposure from Vehicles and Gas Stoves, TE  
Nov. 85, p679-691
- Sakamoto, Hamao**  
see Makigami, Yasuji, TE July 85, p377-394
- Scarino, John H.**  
disc. (of Pipe Restraints: Design Fallacies, by  
Patrick J. Creggan, TE Nov. 83, p840-852), TE  
July 85, p457-464
- Schoenfeld, Paul M.**  
see Chadda, Himmat S., TE Jan. 85, p1-16
- Schroeder, Dwight C.**  
disc. (of Pipe Restraints: Design Fallacies, by  
Patrick J. Creggan, TE Nov. 83, p840-852), TE  
July 85, p464-466
- Sebaaly, Bontros**  
Dynamics of Falling Weight Deflectometer, with  
Trevor G. Davies and Michael S. Mamlouk, TE  
Nov. 85, p618-632
- Sen, Ashish**  
Examining Air Travel Demand Using Time Series  
Data, TE March 85, p155-161
- Seneviratne, Prianka N.**  
Acceptable Walking Distances in Central Areas, TE  
July 85, p365-376
- Simon, Jesse**  
Generating a Bus Route O-D Matrix From On-Off  
Data, with Peter G. Furth, TE Nov. 85, p583-593
- Smoots, Vernon A.**  
see Greenberg, Maurice S., TE March 85, p173-189
- Snow, Charles H.**  
Statistical Analysis of Specification Compliance,  
TE May 85, p280-291
- Somanatha, G. S.**  
see Pranesh, M. R., TE May 85, p237-250
- The Subcommittee on High-Speed Rail Systems of  
the Committee on Public Transport of the Urban  
Transportation Division, chmn.)**  
High-Speed Rail Systems in the United States, TE  
March 85, p79-94
- Sun, Chang-Ning**  
Testing of Cement-Mortar Lined Carbon Steel  
Pipes, with James M. Hoskins and R. Joe Hunt,  
TE Jan. 85, p17-32
- Toft, Graham S.**  
see Mahmassani, Hani S., TE Sept. 85, p473-484
- Tsay, Huel-Sheng**  
see Fricker, Jon D., TE July 85, p395-409
- Tyler, J. Stuart**  
see Hargroves, Bradley T., TE Sept. 85, p539-545
- Uzan, Jacob**  
Extension of CBR Method to Highway Pavements,  
TE Sept. 85, p561-569
- Vegt, E.**  
see Kranenburg, C., TE Sept. 85, p570-581
- Verner, Edward A.**  
Collapse of Thick Wall Pipe in Ultra Deep Water,  
with Carl G. Langner and Michael D. Reifel, TE  
Sept. 85, p485-509
- Violette, Susan**  
see Abkowitz, Mark, TE Sept. 85, p521-530
- Walshi, Thomas M.**  
Correction of Head Loss Measurements in Water  
Mains, TE Jan. 85, p75-78
- Wilson, Frank R.**  
Mathematical Programming for Highway Project  
Analysis, with Hugo Gonzales, TE March 85,  
p162-171